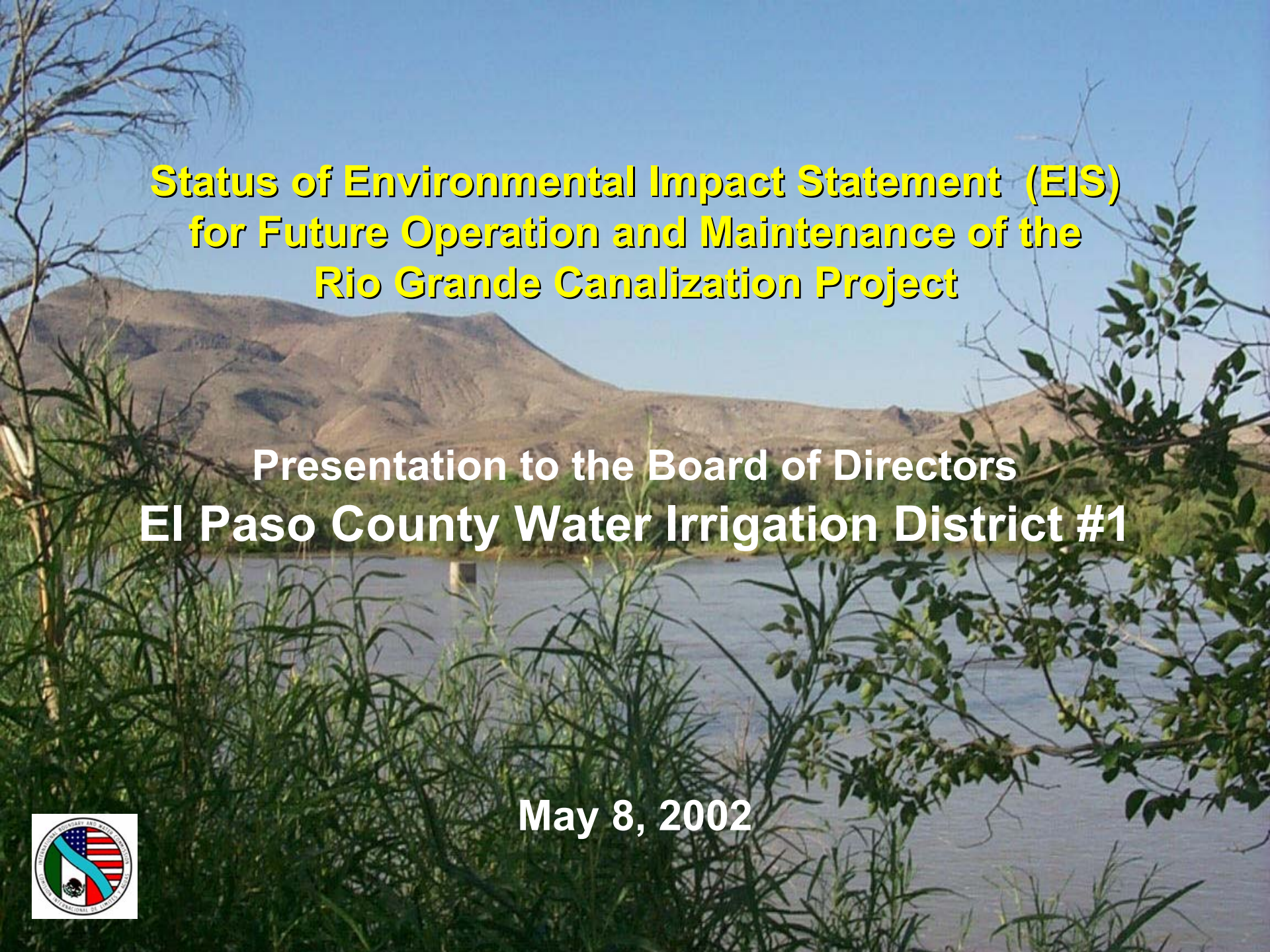


Status of Environmental Impact Statement (EIS) for Future Operation and Maintenance of the Rio Grande Canalization Project

Presentation to the Board of Directors

El Paso County Water Irrigation District #1

May 8, 2002

Agenda

- EIS Update
- Alternatives to be Evaluated
- Implementation

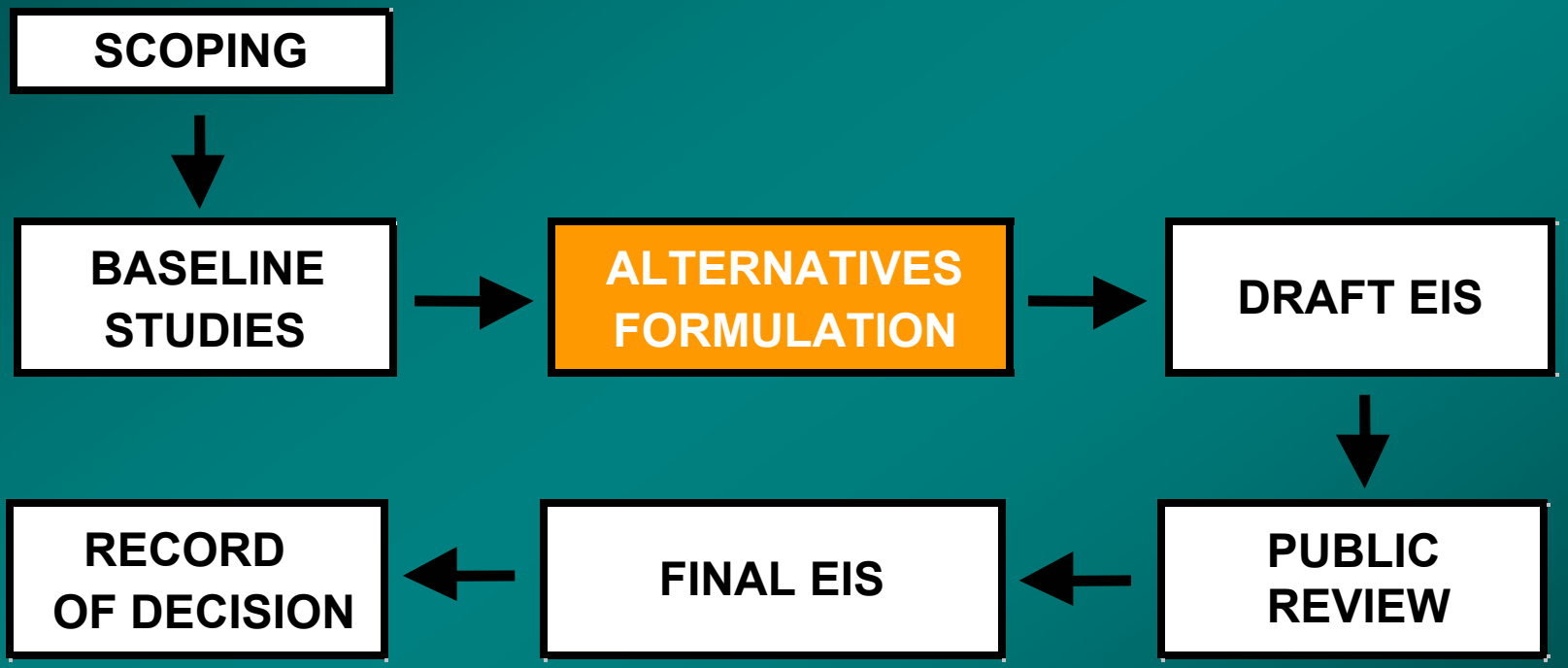
IBWC Rio Grande Canalization Project:

- 106 miles, from Percha Dam to American Dam
- About 75% enclosed by levees
- Right-of-way of about 8,000 acres

Purpose and Need

- Compliance with NEPA
- Evaluate river management alternatives with regard to environmental improvements
- Ensure alternatives under evaluation are consistent with mission:
  - Flood control
  - Water deliveries

Process for EIS Completion



Ongoing Stakeholder Consultation

Scoping Meetings: Nov 1999

Alternatives Formulation

- Technical workshops – Sep 2000
- Public presentation – Oct 2000
- Report – Mar 2001

Partial Alternatives Reformulation

- Technical workshops – Jun to Oct 2001
- EPCWID#1/EBID Meetings – Apr/May 2002

Next: Draft EIS for 45-Day Public Review

Reformulation of Alternatives

CONSULTATION INPUT:

- Source of water and need for water conservation
- More extensive restoration options
- Potential conflicts (legal, RGCP mission)

RESULTS:

- No pre-selection of preferred alternative
- Water conservation incorporated as a key issue
- Reformulated alternatives based on constraints (must be feasible)

Description of Alternatives

1. Maintain Current O&M
   ("No Action" Alternative)
2. Flood Control Improvement
   (Mission compliance)
3. IBWC Land Management
   (Water conservation & habitat improvements)
4. Partial River Restoration
   (Primarily habitat improvements)

1. No Action Alternative (Maintain Current O&M Practices)

Actions for flood control & water deliveries include:

- Levee maintenance
- Dredging of pilot channel & arroyos as required
- Annual mowing of a significant portion of floodway (flood containment, salt cedar control)
- Grazing and agricultural leases
- Maintain existing environmental improvements (aquatic mitigation sites, cottonwood planting sites)

Alternative 2: Flood Control Improvement

CURRENT CONDITIONS

- System efficient but deficiencies exist
- Levee height evaluated by hydraulic modeling
- No information on structural condition (3-yr plan)

ACTIONS INCLUDED

- Raise/build 64 miles of levees (***assumption***)
- Protection of siphons
- Sediment management study
- Habitat improvement as secondary benefit

Alternative 3:
IBWC Land Management

Actions within ROW (in addition to flood control):

- Salt cedar replacement with native vegetation (Habitat improvement and water conservation)
- Bank shave-downs to take advantage of peak discharges
- Pole planting at easily floodable locations
- Erosion control improvement program (1,126 acres)
- Additional recreational areas

Alternative 3: IBWC Land Management (cont.)

- Core Action: Salt cedar replacement with cottonwoods (574 acres)
- Annual Water Consumption (USBR/ET-Toolbox)

  Cottonwood: 3.5 ac-ft/ac

  Grasses: 4.0 ac-ft/ac

  Salt cedar: 4.5 ac-ft/ac

- Up to 11 ac-ft/ac per year reported for salt cedar

Alternative 4: Partial Stream Restoration

- Includes flood control improvements
- Multiple agency/stakeholder participation
- Requires cooperation of agricultural community
  - On-farm water conservation program
  - Voluntary conservation easements
- Salt cedar control & cottonwood planting

  (166 ac within ROW below Leasburg Dam)

Alternative 4: Partial Stream Restoration (cont.)

- Limited channel reconfiguration
  - Reopen meanders within ROW
  - Selective riprap removal near arroyos
  - Wetlands
- Controlled bank overflow in Rincon Valley
  (during high-storage conditions in Elephant Butte)
  - 1 day release from Caballo Dam every 3 years
  - Evaluated up to 3,600 cfs above irrigation flows
    (557 acres bank overflow within ROW)

Implementation Requirements

	ALTERNATIVE			
	1	2	3	4
3-yr evaluation of levees condition	X	X	X	X
10-yr reevaluation of flood control strategy		X	X	X
30-yr implementation (other actions)			X	X
Agricultural water conservation program				X
Actions outside ROW (easements)				X

On-Farm Water Conservation Program Required for Partial Restoration Alternative

- Increase in irrigation efficiency to reduce 40% evaporation losses (true water conservation)
- Program finances improved systems, buys the difference between crop needs and allocation
- Feasible only at high water storage conditions
- 3,000 acres needed to meet required water use (conservation of 1 ft. in a 3 ft. allocation with an irrigation efficiency increase from 60% to 90%)

Water Use Estimate for the Partial Restoration Alternative

Annual Water Use at Full Implementation (30 years)	
Meanders, wetlands	1,250 ac-ft
Expanded bosque:	850
Controlled releases:	2,400
Salt cedar control:	(- 300)
Net Use:	**3,000 ac-ft**

PARSONS

Summary

- Draft EIS, based on reformulated alternatives, will be available for 45-day public review
- Alternatives for Operation and Maintenance:
  1. Continue current O&M practices
  2. Flood control improvement
  3. IBWC land management (salt cedar control)
  4. Partial stream restoration (water acquisition)
- Alternative to be selected after EIS completion

Questions & Answers